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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,534	08/20/2001	David A. Grilli	TRW(AP)5727	5816
26294	7590	07/13/2004	EXAMINER	
TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P. 526 SUPERIOR AVENUE, SUITE 1111 CLEVEVLAND, OH 44114			SMITH, JULIE KNECHT	
			ART UNIT	PAPER NUMBER
			3682	

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/933,534

Applicant(s)

GRILLI ET AL.

Examiner

Julie K Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1, 3-12 and 14-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-12 and 14-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3-6, 8, 11, 19-24 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Sawada et al. (Re. 36,898). Sawada et al disclose a steering wheel with a rim portion, a spoke portion, and a foamed padding material, adhered to the spoke portions, having a first portion (1b) with a substantially uniform cell density and a second portion (1a) with a continuous external surface free of interruption by a cell, the padding material comprising a gasified chemical foaming agent (see col. 8, lines 10-12) and a thermoplastic polyolefin elastomer, such as polypropylene, with a shore hardness of less than 90. The foaming agent is either exothermic or endothermic and the foamed padding includes a colorant, stabilizers, or fillers (see col. 4, lines 25-36). The wheel is manufactured by injection molding. The elastomer and chemical foaming agent are mixed, the mixture foamed and then adhered to a steering wheel armature to form the padding material. The elastomer is melted to fit the mold.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7, 12, 14, 15, 18 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada et al. as applied to claims 1, 3-6, 8, 11, 19-24 and 27 above, and further in view of Reidy et al. (6,386,579). Sawada et al. discloses a foamed padding, as claimed, but does not disclose whether the material is plasticizer-free. However, Reidy et al. discloses a foamed padding for a steering wheel that plasticizer-free.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the padding of Sawada et al. with the teachings of Reidy et al. to omit plasticizers, as they can migrate to the surface of the padding and cause problems with adhesion or paints.

4. Claims 9 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada et al. as applied to claims 1, 3-6, 8, 11, 19-24 and 27 above, and further in view of Braun et al. (WO 99/10419). Sawada et al. disclose the claimed invention except for the encapsulation of the foaming agent. However, Braun et al. disclose that it is known in the art to provide an impregnated polyolefin granule containing a foaming agent.

Therefore, it would have been obvious to one of ordinary skill in the art to provide the foaming agent of Sawada et al. within a capsule, as taught by Braun et al. in order to avoid contamination of the surroundings.

5. Claims 10, 16, 17 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada et al. in view of Reidy et al. as applied to claims 7, 12, 14, 15, 18 and 28 above, and further in view of Braun et al. The reference combination set forth above discloses the claimed invention having a resin carrier made of thermoplastic polyolefin elastomer, but does not disclose the encapsulation of the foaming agent. However, Braun et al. disclose that it is known in the art to provide an impregnated polyolefin granule containing a foaming agent.

Therefore, it would have been obvious to one of ordinary skill in the art to provide the foaming agent of the reference combination set forth above within a capsule, as taught by Braun et al. in order to avoid contamination of the surroundings.

6. Claims 29-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada et al. in view of Clarke (5,985,191). Sawada et al. disclose the claimed invention except for varying the temperature of the mold over different portions. Clarke teaches molding an article by using temperature variations to control the degree of foaming in different sections of an article.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the mold of Sawada et al. with walls of varied temperature to ensure the lesser density reduction in the airbag cover. Moreover, it is old and well known in the

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thermoplastic molding art to vary the temperature of the mold to obtain specific properties, such as density.

7. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada et al. in view of Clarke as applied to claims 29-35 above, and further in view of Braun et al. Sawada et al. disclose the claimed invention except for the encapsulation of the foaming agent. However, Braun et al. disclose that it is known in the art to provide an impregnated polyolefin granule containing a foaming agent.

Therefore, it would have been obvious to one of ordinary skill in the art to provide the foaming agent of Sawada et al. within a capsule, as taught by Braun et al. in order to avoid contamination of the surroundings.

8. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sawada et al. in view of Clarke as applied to claims 29-35 above, and further in view of Reidy et al. The reference combination set forth above discloses a foamed padding, as claimed, but does not disclose whether the material is plasticizer-free. However, Reidy et al. discloses a foamed padding for a steering wheel that plasticizer-free.

9. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the padding of the reference combination set forth above with the teachings of Reidy et al. to omit plasticizers, as they can migrate to the surface of the padding and cause problems with adhesion or paints.

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*Response to Arguments*

10. Applicant's arguments with respect to claims 1, 3-12 and 14-37 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

4,917,944 to Breitscheidel et al.

5,407,991 to Hikasa et al.

5,611,565 to Inaba et al.

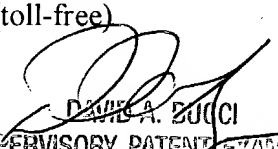
6,742,545 to Fisher et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie K Smith whose telephone number is 703-305-3948. The examiner can normally be reached on Monday-Friday, 8-5:30, (Every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Bucci can be reached on 703-308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JKS  
Jks  
July 9, 2004

  
DAVID A. BUCCI 7/12/04  
SUPERVISORY PATENT EXAMINER  
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